

### **ABSTRACT OF THE DISCLOSURE**

A method and apparatus for plating a metal onto a substrate. The apparatus includes a fluid basin configured to contain a plating solution, an anode fluid volume positioned in a lower portion of the fluid basin, a cathode fluid volume positioned in an upper portion of the fluid basin, an ionic membrane positioned to separate the anode fluid volume from the cathode fluid volume, a plating electrode centrally positioned in the anode fluid volume, and a deplating electrode positioned adjacent the plating electrode in the anode fluid volume.

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